

## REMARKS

Claims 1 - 17 are presently pending in this application. Claims 1 and 8 have been amended to clarify the present invention in view of the Examiner's new grounds of rejection. No new matter has been added.

### Claim Rejections – 35 USC 102(b)

Claims 1, 12 were rejected under 35 USC 102(b) as being anticipated by Rekimoto. Rekimoto discloses an Information Input Apparatus that includes an interactive display system. The interactive display system uses an infrared transmitter to apply infrared light to the back surface of a semi-transparent screen with a CCD camera that captures only the infrared light reflected from the semi-transparent screen and a projector for projecting an image onto the semi-transparent screen. A user on the other side of the semi-transparent screen manipulates the light so to vary the quantity of light reflected back to the CCD camera.

Claim 1 as amended includes a motion sensor that includes the limitations of an infrared transmitter for transmitting an infrared signal to a heat emitting object with an infrared receiver that receives the reflected signal from the heat emitting object. The infrared receiver is coupled to a control circuit that controls an output in response to the reflected signal.

The law is clear and well-settled that in order for a claim to be anticipated under the standard of 35 U.S.C. 102, every claimed element must be present in the prior art reference. The Court of Appeals for the Federal Circuit clearly stated that “[i]n deciding the issue of anticipation, the trier of fact must identify the elements of the claims, determine their meaning in light of the specification and prosecution history, and identify corresponding elements disclosed in the allegedly anticipating reference.” *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 221 USPQ 193 (Fed. Cir. 1984). The Court of Appeals for the Federal Circuit states that for anticipation under 35 U.S.C. 102, that “There must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention.” *Scripps Clinic & Research Found. v. Genetech Inc.*, 18 USPQ 2d 1001 (Fed. Cir. 1991)

In the present instance, Rekimoto fails to disclose an infrared transmitter that reflects a signal onto a heat emitting object, an infrared receiver for receiving the reflected signal, and a control circuit that controls an output based on the infrared receiver receiving the reflected signal. Thus claim 1 is allowable over Rekimoto.

Claim 12 has been amended in a similar manner and is thus allowable for reasons discussed above.

Claim 7 was rejected as anticipated by Zimmerman. Zimmerman discloses a photoelectric proximity sensor. Zimmerman does not disclose an infrared transmitter for reflecting a signal onto a heat emitting object with an infrared receiver for receiving the reflected signal. Zimmerman in particular does not disclose a keypad assembly with an illumination device that is activated when the infrared transmitter reflects a signal onto a heat emitting object onto an infrared receiver.

As discussed above, since Zimmerman fails to disclose these claimed limitations, claim 7 is allowable over Zimmerman.

### **Claim Rejections – 35 USC 103(a)**

Claims 2 – 7, 13 – 17 were rejected under 35 USC 103(a) over Rekimoto in view of Ludenia. Ludenia discloses an electrical appliance with a motion detector for controlling an optical indicating display. The motion detector uses a combined infrared transmitter/receiver for determining the presence of a person. Ludenia fails to disclose the use of an infrared transmitter that only reflects onto heat emitting objects.

It is a tenet of patent law that under 35 U.S.C. 103, the references must suggest the need for a limitation in order to modify a reference to achieve that limitation. The standard to establish obviousness under 35 U.S.C. 103 has been defined by the CCPA and the CAFC to require:

1. One or more references
2. that were available to the inventor and
3. that teach
4. a suggestion to combine or modify the references,

5. the combination or modification of which would appear to be sufficient to have made the claimed invention obvious to one of ordinary skill in the art.

As stated by the Federal Circuit in *In re Fritch*, 23 USPQ 2d 1780, 1783-1784 (Fed. Cir. 1992), “The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification.”

Neither Rekimoto and Ludenia disclose the use of an infrared transmitter reflecting a signal onto a heat emitting object, the use of an intermittently transmitted infrared signal, or receiving a reflected signal only within a predetermined distance. Further, neither Rekimoto or Ludenia disclose a keypad assembly that uses an infrared transmitter that reflects a signal onto a heat emitting object with an infrared receiver that receives the reflected signal to cause the keypad to be illuminated. There is no suggestion in either reference of these limitations nor is there any motivation for altering these disclosures to obviate the inventions set forth in claims 2 – 7 and 13 – 17.

Claims 8 – 11 are rejected under 35 USC 103(a) as unpatentable over Zimmerman in view of Ludenia. As discussed above, neither Zimmerman or Ludenia disclose the claimed limitations of a keypad assembly that uses an infrared transmitter that reflects a signal onto a heat emitting object with an infrared receiver that receives the reflected signal to cause the keypad to be illuminated. There is no suggestion in either reference of these limitations nor is there any motivation for altering these disclosures to obviate the inventions set forth in claims 8 - 11. Further there is no suggestion or motivation of providing a timing device activated by the output of the control circuit either Zimmerman or Ludenia.

### **Summary**

Applicant respectfully requests reconsideration of claims 1 - 17 in view of the amendments and the above remarks. These claims are believed to be in condition for allowance. Applicant respectfully request that this amendment be entered and that a timely Notice of Allowance be issued in this case.

The Examiner is respectfully requested to telephone the undersigned if further discussions would advance the prosecution of this application.

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Respectfully submitted,

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